

ISS Remote User Payload Operations Training and Support

Karl Roth

NASA, Marshall Space Flight Center, AL 35812

Abstract

For more than ten years hundreds of payloads have been, and are currently being, successfully operated onboard the ISS. These payloads are operated by a diverse set of users all over the world. Due to the current international economic environment payload operations are being streamlined, in more and more cases, by using the payload investigators and scientists to also fill the role of operators. Taking this into consideration, increasingly, we have payload operators that are new to space operations and practices, therefore ground systems training and support have become a more critical aspect in ensuring a successful payload mission.

The ISS ground systems payload interface is the Payload Operations and Integration Center (POIC), located at Marshall Space Flight Center. ISS ground systems training for all remote ISS payload operators, as well as the ISS POIC CADRE, are centralized at this facility. The POIC is the starting point for a remote payload operator to learn how to integrate, and operate their payload, successfully onboard the ISS. Additionally, the CADRE that supports the payload user community are trained and operate from this facility.

This paper will give an overview of the ISS ground systems at the POIC, as it relates to the payload user/operator and CADRE community. The entire training process from initial contact with the POIC to in-flight operations will be reviewed and improvements to this process will be presented. More importantly we will present current training methods and proposed methodology whereby the user community will be trained more efficiently and thoroughly. Also, we will discuss how we can more effectively support users in their operations concept to programmatically conduct certain aspects of payload operations to reduce costs.